

California Environmental Quality Act

Findings

(Public Resource Code § 21081, CEQA Guidelines § 15091)

for the

Final Environmental Impact Report/Environmental Assessment on

Imperial Solar Energy Center South

(SCH No. 2010061038)

1.0 Introduction

The following Findings are made for the Environmental Impact Report/Environmental Assessment (the "EIR/EA") for the proposed Imperial Solar Energy Center South (the "Project"). The EIR/EA analyzes the significant and potentially significant environmental impacts, which may occur as a result of the Project.

The Project involves the approval of a Conditional Use Permit (CUP #10-0011) and Variance (V10-0006), by the County of Imperial. The approval of the conditional use permit would allow for the construction and operation of the proposed solar power plant on parcels zoned for agriculture (i.e., A-2-R and A-3). The approval of the variance would allow the transmission towers to exceed the 120-foot height limit within the A-2-R and A-3 zones.

The Proposed Action consists of three primary components: 1) the construction and operation of the 200 Megawatt Imperial Solar Energy Center South solar energy facility; 2) the construction and operation of the electrical transmission lines that would connect from the solar power facility to the existing Imperial Valley substation; and, 3) the five foot widening of the proposed access road and improvements. The electricity generation process associated with the Proposed Action would utilize solar technology to convert sunlight directly into electricity. As part of the project, the facility would interconnect to the utility grid at the 230 kV side of the Imperial Valley Substation via an approximately five-mile long transmission line. The proposed right-of-way (ROW) for the electrical transmission line corridor would be 120-feet wide. The project proponent is also requesting the improvement and use of an existing dirt access road that would be utilized during construction and operation of the solar energy facility. This existing dirt road is located along the west side of the Westside Main Canal, a portion of which is located within BLM lands.

1.1 Purpose of CEQA Findings; Terminology

CEQA Findings play an important role in the consideration of projects for which an EIR/EA is prepared. Under **Public Resources Code §21081** and **CEQA Guidelines §15091** above, where a final EIR/EA identifies one or more significant environmental effects, a project may not be approved until the public agency makes written findings supported by substantial evidence in the administrative record regarding each of the significant effects. In turn, the three possible findings specified in **CEQA Guidelines §15091(a)** are:

1. Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

CEQA Guidelines §15092(b) provides that no agency shall approve a project for which an EIR/EA was prepared unless either:

1. The project approved will not have a significant effect on the environment, or
2. The agency has:
 - a. Eliminated or substantially lessened all significant effects where feasible as shown in the findings under Section 15091, and
 - b. Determined that any remaining significant effects on the environment found to be unavoidable under Section 15091 are acceptable due to overriding concerns as described in Section 15093.

1.2 Environmental Impact Report Process

After the County reviewed the application for the proposed project, it concluded that the project could have a significant impact on the environment and that preparation of an environmental impact report was determined to be the appropriate CEQA environmental document. The County issued a Notice of Preparation (NOP) on June 11, 2010. The NOP was distributed to city, county, and state and federal agencies, other public agencies, and various interested private organizations and individuals. Six comment letters were received during the 30-day NOP review period. A public scoping meeting was held on June 24, 2010. A copy of the NOP and written comments received in response to the NOP are included in Appendix A of the Final EIR/EA.

Based upon comments the County received in response to the NOP, it was determined that the Draft EIR/EA should analyze project related environmental impacts relative to the following sixteen substantive potential impact areas in the Environmental Analysis section:

- Visual Resources
- Land Use
- Transportation/Circulation
- Air Quality
- Greenhouse Gas Emissions

- Geology/Soils and Mineral Resources
- Cultural Resources
- Noise
- Agricultural Resources
- Health, Safety and Hazardous Materials/Fire and Fuels Management
- Hydrology and Water Quality
- Biological Resources
- Paleontological Resources
- Socioeconomic Conditions and Environmental Justice
- Recreation
- Special Designations

Additionally, the Final EIR/EA was required to include other CEQA substantive sections including an Executive Summary, Introduction, Project Description (Proposed Action and Alternatives), Cumulative Impacts, Other CEQA Required Considerations, and a listing of Effects Found Not to be Significant.

2.0 Project Description

The Proposed Action consists of three primary components: 1) the construction and operation of the Imperial Solar Energy Center South solar energy facility; 2) the construction and operation of the electrical transmission lines that would connect from the solar power facility to the existing Imperial Valley substation; and 3) the widening and use of an existing dirt road for construction access and operation access. The existing dirt road traverses BLM lands and private lands. The electricity generation process associated with the Proposed Action would utilize solar photovoltaic technology to convert sunlight directly into electricity. As part of the project, the solar energy facility would interconnect to the utility grid at the 230 kV side of the Imperial Valley Substation via an approximately five-mile long transmission line. The proposed right-of-way (ROW) for the electrical transmission line corridor would be 120-feet wide. The project proponent is also requesting construction and operational access to the solar energy facility via use of an existing dirt road located along the west side of the Westside Main Canal, a portion of which is located within BLM lands. Specifically, the portion of the access road within BLM lands is 1,260 feet, and would be widened by five feet.

The site of the proposed solar energy facility is located on 946.6 gross acres of privately-owned, undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County of Imperial, approximately eight miles west of the City of Calexico. Imperial County is located in Southern California, bordering Mexico, and east of San Diego County.

2.1 Project Purpose and Objectives

The purpose of the Proposed Action is to utilize Imperial County's abundance of available solar energy (sunlight) to generate renewable energy. The following objectives have been identified for the Proposed Action. These objectives also provide a basis for identification of alternatives evaluated in the EIR/EA.

- Construct and operate a solar energy facility capable of producing 200 megawatts of electricity which would help meet the increasing demand for clean, renewable electrical power.
- Construct and operate a solar power facility with minimal impacts to the environment by locating the facility on previously disturbed land.
- Operate a facility at a location that ranks amongst the highest in solar resource potential in the nation.
- Align transmission lines with existing lines contained within an existing utility corridor to minimize impacts to BLM land.
- Provides economic investment and diversifies the economic base for Imperial County.
- Reinforce Imperial County's position as a leader in the renewable energy world.
- Operate a renewable energy facility that does not produce noise, emit any greenhouse gases , and minimizes water use.
- Meet the increasing demand for clean, renewable electrical power.
- Help reduce reliance on foreign sources of fuel, promotes national security, diversifies energy portfolios, contributes to the reduction of greenhouse gas emissions and generates "green" jobs.
- The Project will contribute much needed on-peak power to the electrical grid in California.
- Help California meet its statutory and regulatory goal of increasing renewable power generation.
- Assist California in meeting its Renewable Portfolio Standard goals of 33 percent of electrical power retail sales by 2020 under pending legislation.
- Support U.S. Secretary of the Interior Salazar's Orders 3283 and 3285 making the production, development and delivery of renewable energy top priorities for the United States.
- Support the greenhouse gas reduction goals of Assembly Bill 832 (California Global Warming Solutions Act of 2006).
- Sustain and stimulate the economy of Southern California by helping to ensure an adequate supply of renewable electrical energy while simultaneously creating additional construction and operations employment and increased expenditures in many local businesses.
- Locate the solar energy generating facility on a site with the proximity and the ability to interconnect to the California Independent System Operator (CAISO) controlled transmission network.
- Locate the solar energy generating facility on a site with the ability to utilize a previously designated utility transmission corridor.

2.2 Discretionary Actions/Approvals by the County of Imperial

The County is the “lead agency” for this Project. Lead agency is defined as, “the public agency, which has the principal responsibility for carrying out or approving a project.” The County must undertake the following discretionary actions and approvals for the Project:

1. **Conditional Use Permit (CUP #10-0011).** The Proposed Action would require approval of a Conditional Use Permit by the County of Imperial that would allow for the construction and operation of the proposed solar power plant on the solar energy facility site which consists of six privately-owned (i.e. located outside of BLM lands) legal parcels zoned A-3 (Heavy Agriculture) and A-2-R (General Agriculture Rural). Pursuant to Title 9, Division 5, Chapter 9, “Solar Energy Plants” is a use that is permitted in the A-3 and A-2-R Zones, subject to securing a conditional use permit. (“Transmission lines, including supporting towers, poles, microwave towers, utility substations” are permitted uses within the A-3 Zone.)
2. **Site Plan.** Site Plan and Architectural Review is required for all non-residential projects.
3. **Variance (V10-0006).** A variance is required for the solar energy facility site in order to exceed the height limit for transmission towers within the A-3 and A-2-R Zones. The existing A-3 and A-2-R zones allow a maximum height limit of 120-feet; whereas, transmission towers of up to 140 feet in height are proposed. This variance applies to the towers that would be located within the private lands under the jurisdiction of the County of Imperial and public lands under the jurisdiction of the BLM.
4. **Certification of the Final EIR.** After the required public review for the Draft EIR, the County of Imperial will respond to written comments, edit the document, and produce a Final EIR to be certified by the Planning Commission and/or Board of Supervisors prior to making a decision on the project.

Additionally, the project will involve issuance of other permits and approvals necessary and desirable to implement the project including such things as building permits, grading permits, and septic system permits.

A variety of entitlement actions and discretionary permits will be required from the County of Imperial to implement the components of the Proposed Action:

- Grading Plan for the project site and roadways
- Construction Traffic Control Plan
- Building Permits
- Encroachment Permits from the County of Imperial Public Works Department for access to the lot(s) and for any proposed road crossings.

2.3 Discretionary Actions/Approvals by Other Agencies

Responsible agencies are those agencies that possess discretionary authority to approve one or more actions involved with implementation of the Project. Trustee Agencies are state agencies that possess discretionary authority or jurisdiction by law over natural resources affected by the Project. For this Project, these agencies may include:

- A. Imperial County Fire Department – approval of final design of the proposed fire system.
- B. California Department of Transportation – encroachment permit.
- C. California Regional Water Quality Control Board – Notice of Intent, water quality certification.
- D. California Department of Fish and Game (Trustee Agency) – endangered species act compliance, burrowing owl mitigation.
- E. U.S. Army Corps of Engineers – Clean Water Act Section 404 Nationwide Permit
- F. U.S. Fish and Wildlife Service – Endangered Species Act compliance
- G. Imperial Irrigation District – Encroachment permit
- H. Imperial County Air Pollution Control District – Rule 801 compliance

3.0 Project Location

The site of the proposed solar energy facility is located on 946.6 gross acres of privately-owned, undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County of Imperial, approximately eight miles west of the City of Calexico. Imperial County is located in Southern California, bordering Mexico, and east of San Diego County.

The solar energy facility property is located south of Anza Road, north of Cook Road, and is generally bisected by Pullman Road. This portion of the project site consists of six privately-owned parcels: Assessor Parcel Numbers (APN): 052-190-021; 052-190-022; 052-190-023; 052-190-033; 052-190-03; and, 052-190-037.

The proposed transmission lines and a portion of the access road would be located within the Yuha Desert, and within the Bureau of Land Management's (BLM) Utility Corridor "N" of the California Desert Conservation Area plan. The proposed access road traverses both BLM lands and private land, and is located on the west side of the Westside Main Canal.

4.0 Issues Addressed in the EIR/EA

The EIR/EA contains an environmental analysis of the potential impacts associated with implementing the Project. These issues include visual resources; land use; transportation/circulation; air quality; greenhouse gas emissions; geology/soils and mineral resources; cultural resources; noise; agricultural resources; health, safety and hazardous materials/fire and fuels management; hydrology and water quality; biological resources; paleontological resources; socioeconomic conditions and environmental justice; recreation; and, special designations.

5.0 Mitigation Monitoring Program

Pursuant to PRC §21081.6, the County has adopted a detailed mitigation and monitoring program prepared under the County's direction. The program is designed to ensure that all mitigation measures

and Conditions of Approval as hereafter required are in fact implemented on a timely basis as the Project is implemented.

6.0 Record of Proceedings

For all purposes of CEQA compliance, including these Findings of Fact, the administrative record of all County proceedings and decisions regarding the environmental analysis of the Project include but are not limited to:

- The Draft and Final EIR/EA for the Project, together with all appendices and technical reports referred to therein, whether separately bound or not, or on a CD;
- All reports, letters, applications, memoranda, maps or other planning and engineering documents prepared by the County, its planning consultant and environmental consultant, the Applicant or others and presented to or before the decision-makers or staff;
- All minutes of any public workshops, meetings or hearings, and any recorded or verbatim transcripts or videotapes thereof;
- Any letters, reports or other documents or evidence submitted into the record at any public workshops, meetings or hearings; and
- Matters of common general knowledge to the County which it may consider, including applicable state or local laws, ordinances and policies, the General Plan and all applicable planning programs and policies of the County.

Documents or other materials that constitute the record of proceedings upon which these Findings are made are located at the Department of Planning and Development Services of the County of Imperial, 801 Main Street, El Centro, CA 92243.

7.0 Findings of Significant Impacts, Required Mitigation Measures and Supporting Facts

The County, having reviewed and considered the information contained in the EIR/EA, finds pursuant to Public Resources Code §21081(a)(1) and Guidelines §15091(a)(1) that changes or alterations have been required in, or incorporated into, the Project which would mitigate, avoid, or substantially lessen to below a level of significance the following potential significant environmental effects identified in the EIR/EA.

7.1 Air Quality

7.1.1 *Grading/Clearing/Hauling*

- A. Potential Impact.** Significant NO_x impacts are expected due to construction grading operations. NO_x emissions of 103.5 pounds per day would exceed the Imperial County Air Pollution Control District's (ICAPCD) threshold of 55 pounds per day. This is considered a significant impact.

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures AQ1 and AQ2 of the Final EIR/EA.

Mitigation Measure AQ1

All off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, will meet, at a minimum, the Tier 2 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment. If a Tier 2 engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the Project owner has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete the Project's construction. This will be documented with signed written correspondence by the appropriate construction contractor, along with documented correspondence with at least two construction equipment rental firms.

A list of the construction equipment and the associated EPA Tier shall be submitted to the County Planning and Development Department prior to the issuance of a grading permit to verify implementation of measure.

Mitigation Measure AQ2

Pursuant to Imperial County's APCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII-Fugitive Dust Control Measures. These mitigation measures listed below shall be implemented prior to and during construction. The County Department of Public Works will verify implementation and compliance with these measures.

ICAPCD Standard Measures for Fugitive Dust (PM₁₀) Control

- All disturbed areas, including Bulk Material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material such as vegetative ground cover.
- All on site and off site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.
- All unpaved traffic areas one (1) acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.
- The transport of Bulk Materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of Bulk Material. In addition, the cargo compartment of all Haul Trucks is to be cleaned and/or washed at delivery site after removal of Bulk Material.

- All Track-Out or Carry-Out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an Urban area.
- Movement of Bulk Material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.
- The construction of any new Unpaved Road is prohibited within any area with a population of 500 or more unless the road meets the definition of a Temporary Unpaved Road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

ICAPCD Standard Measures for Construction Combustion Equipment

- Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
- Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).
- Construction equipment operating onsite should be equipped with two to four degree engine timing retard or precombustion chamber engines.
- Construction equipment used for the project should utilize EPA Tier 2 or better engine technology.
- Keep vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same.

ICAPCD "Discretionary" Measures for Fugitive Dust (PM₁₀) Control

- Water exposed soil with adequate frequency for continued moist soil, including a minimum of three wettings per day during grading activities.
- Replace ground cover in disturbed areas as quickly as possible.
- Automatic sprinkler system installed on all soil piles.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- Implement the trip reduction plan to achieve a 1.5 AVR for construction employees.
- Implement a shuttle service to and from retail services and food establishments during lunch hours.

Enhanced Mitigation Measures for Construction Equipment

- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways.
- Implement activity management (e.g. rescheduling activities to reduce short-term impacts).

7.1.2 *Aggregate Construction Emissions*

- A. Potential Impact.** An aggregate emissions exceedance of NO_x would occur if the Grading Emissions phase were to remain unmitigated at the Tier 0 Baseline. NO_x aggregate emissions of 123.6 pounds per day would exceed ICAPCD's threshold of 55 pounds per day. This is considered a significant impact.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures AQ1 and AQ2 (as listed above) of the Final EIR/EA.

7.1.3 *Operation and Maintenance Building Emissions*

- A. Potential Impact.** Although, no air quality operational impact is identified, the Proposed Action, pursuant to the ICAPCD's CEQA Handbook, Rule 310 (Operational Development Fee) would apply to the proposed Operation and Maintenance Building.
- B. Facts in Support of Finding.** Implementation of Mitigation Measure AQ3 of the Final EIR/EA would ensure that air quality operational impacts would not rise above the level of significance.

Mitigation Measure AQ3

Prior to the issuance of a building permit, the project applicant shall comply with the ICAPCD Rule 310. All project proponents shall consult with ICAPCD to select and implement off-site mitigation measures, pay an operational development fee, or a combination of both.

7.2 *Greenhouse Gas Emissions*

- A. Potential Impact.** Implementation of the proposed project would not result in a significant impact associated with greenhouse gas emissions. However, the Proposed Action is required to be consistent with the GHG emissions reduction strategies of AB 32.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures GHG1 and GHG2 of the Final EIR/EA.

Mitigation Measure GHG1

Diesel Equipment (Compression Ignition) Offset Strategies (40% to 60% Reduction):

- 1) Use electricity from power poles rather than temporary diesel power generators.
- 2) Construction equipment operating onsite should be equipped with two to four degree engine timing retard or precombustion chamber engines.
- 3) Construction equipment used for the project should utilize EPA Tier 2 or better engine technology (Requirement under Mitigation Measure AQ1 as described in Section 4.4 of this EIR/EA).

Mitigation Measure GHG2

Vehicular Trip (Spark Ignition) Offset Strategies (30% to 70% Reduction):

- 4) Encourage commute alternatives by informing construction employees and customers about transportation options for reaching your location (i.e. post transit schedules/routes).
- 5) Help construction employees rideshare by posting commuter ride sign-up sheets, employee home zip code map, etc.
- 6) When possible, arrange for a single construction vendor who makes deliveries for several items.
- 7) Plan construction delivery routes to eliminate unnecessary trips.
- 8) Keep construction vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same.

7.3 Geology/Soils and Mineral Resources

A. Potential Impact. The Proposed Action site contains expansive soils and is prone to liquefaction and differential settlement.

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure GS1 of the Final EIR/EA.

Mitigation Measure GS1

Prior to approval of final engineering and grading plans for the Imperial Solar Energy Center South project site, the County shall verify that all recommendations contained in the *Geotechnical Investigation Report, Imperial Solar Energy Center South*, prepared by Landmark Consultants, Inc. (May 2010) has been incorporated into all final engineering and grading plans. This report identifies specific measures for mitigating geotechnical conditions on the project site, and addresses site preparation, foundations and settlements, slabs-on-grade, concrete mixes and corrosivity, seismic design, and pavement design. The County's soil engineer and engineering geologist shall review grading plans prior to finalization, to verify plan compliance with the recommendations of the report. All development on the project site shall be in accordance with Title 24, California Code of Regulations.

7.4 Cultural Resources

7.4.1 *Direct Impacts*

- A. Potential Impact.** Implementation of the Proposed Action would result in significant impacts to one previously recorded cultural site located within the Area of Potential Effect (APE).
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure CR1 of the Final EIR/EA.

Mitigation Measure CR1

The sites, which would be impacted during project construction, are broken down by alternative in Section 4.7.1 above. For those sites subject to the preliminary surveys and which would be directly impacted due to the construction of access roads, towers, pull sites, or solar fields, a formal testing and evaluation program is required. The evaluation program for such sites shall document the presence or absence of subsurface deposits and the specific research potential for each site. In addition, the evaluation program shall be consistent with the *Secretary of Interior Standards for the Treatment of Historic Properties and the Secretary of Interior Standards and Guidelines for Archaeology and Historic Preservation*. Should these sites be determined eligible for listing on the NRHP, CRHR, and/or local register, best management practices consistent with the *Secretary of Interior Standards for the Treatment of Historic Properties and the Secretary of Interior Standards and Guidelines for Archaeology and Historic Preservation* shall be required including:

- a) Preservation in Place:
 - (1) Avoidance of the resource through project redesign in a manner that is technically possible, operationally possible, does not cause a new significant environmental impact or increase the severity of a significant environmental impact, and does not cause the loss or more than 1 MW of production.
 - (2) Covering the archaeological sites with a layer of chemically stable soil before constructing facilities on site so long as covering can be done in a manner that is technically possible, does not cause a new significant environmental impact or increase the severity of a significant environmental impact, and does not cause the loss or more than 1 MW of production.
- b) Minimizing impacts by limiting the degree of impacts or reducing the impact through best management practices identified in a data recovery, excavation and/or construction monitoring plan. The content of this plan must be consistent with the Secretary of Interior's Standards for the Treatment of Historic Properties and Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation and include a description of areas to be monitored during construction, a discovery plan that will address unanticipated cultural resources, and provisions for the education of construction workers.

7.4.2 *Indirect Impacts*

- A. Potential Impact.** There is potential for indirect effects to sites adjacent to the direct impact areas within the Proposed Action APE due to increased traffic during construction. It is also possible that grading within the construction area could increase the amount of sheet flow and water runoff during heavy rainfall events that could cause damage to cultural sites outside the construction area.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure CR2 of the Final EIR/EA.

Mitigation Measure CR2

There are additional sites which may be impacted due to their proximity to construction areas (see Section 4.7.1). Because these sites are located near areas being impacted by project construction, temporary fencing around their perimeters will be required to ensure that project impacts remain within the proposed impact area and that cultural resources are avoided by project personnel. In addition, grading within the construction area shall be performed in a manner that incorporates sheet flow and water runoff diversion techniques to prevent surface water from damaging off-site cultural sites.

7.4.3 *Unknown Archaeological Subsurface Resources*

- A. Potential Impact.** There is a potential for subsurface excavation activities (i.e., grading, excavation, and trenching) to impact unknown archaeological subsurface resources.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure CR3 of the Final EIR/EA.

Mitigation Measure CR3

Pursuant to CEQA Guidelines § 15064.5(f), in the event that unknown historic or unique archaeological resources are encountered during construction or operational repairs, archaeological monitors will be authorized to temporarily divert construction work within 100 feet of the area of discovery until the significance and the appropriate mitigation measures are determined by a Registered Professional Archaeologist familiar with the resources of the region. Applicant shall notify the County within 24 hours. Applicant shall provide contingency funding sufficient to allow for implementation of avoidance measures or appropriate mitigation.

7.4.4 *Unknown Human Remains*

- A. Potential Impact.** There is a potential for subsurface excavation activities (i.e., grading, excavation, and trenching) to impact unknown human remains.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure CR4 of the Final EIR/EA.

Mitigation Measure CR4

If human remains are discovered, work will be halted in that area, and the procedures set forth in the CEQA Guidelines Sec. 15064.5 (d) and (e), California PRC Sec. 5097.98 and state HSC Sec. 7050.5 and the Native American Graves Protection and Repatriation Act (NAGPRA) shall be followed, as applicable.

7.5 Agricultural Resources

A. Potential Impact. Implementation of the Proposed Action would result in the conversion of approximately 820.7 net acres of Prime Farmland and Farmland of Statewide Importance to non-agricultural uses. Permanent loss of Prime Farmland and Farmland of Statewide Importance is considered a potentially significant impact.

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure AR1 of the Final EIR/EA.

Mitigation Measure AR1

Prior to the issuance of a grading permit or building permit (whichever permit comes first) for the Proposed Action, the mitigation of impact to agricultural lands shall be accomplished via one of the following as determined by the Permittee:

The "Imperial Solar Energy Center South" project will result in the permanent loss of 820.7 acres of agricultural lands (prime farmland and farmland of statewide importance) and the following mitigation measures shall apply:

Option 1: The Permittee shall procure Agricultural Conservation Easements on a 2 to 1 basis for all 820.7 acres, of similar quality farmland, outside of the path of development. The Conservation Easement shall meet the State Department of Conservation's regulations and shall be recorded prior to issuance of any grading or building permits.

Option 2: The Permittee shall pay an "Agricultural In-Lieu Mitigation Fee" in the amount of 20% of the fair market value per acre for the 820.7 acres based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Planning and Development Services Department and will be used for such purposes as the acquisition, stewardship, preservation and enhancement of agricultural lands within Imperial County.

Option 3: The Permittee shall submit to the County of Imperial a reclamation plan to return the property to its current agricultural condition prior to the issuance of any building permits. The reclamation plan shall include a reclamation cost estimate prepared by a licensed general contractor or civil engineer. The Applicant shall provide financial assurance in the amount equal to the reclamation cost estimate to return the land to its current agricultural condition prior to the issuance of any building permits.

7.6 Health, Safety and Hazardous Materials/Fire and Fuels Management

7.6.1 *Trash and Debris*

- A. Potential Impact.** An abundant amount of trash and debris has been scattered throughout the solar energy facility site, particularly along the access roads on the project site. Improper cleanup and disposal of this debris has the potential to harm the public and the environment.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure HM1 of the Final EIR/EA.

Mitigation Measure HM1

Prior to the issuance of a grading permit or Notice to Proceed (NTP), all trash and debris within the project site (solar energy facility site, transmission line corridor and access road) shall be disposed of off-site, in accordance with current, local, state, and federal disposal regulations. Compliance with this measure shall be verified by the BLM and the Planning and Development Services Department before issuance of a NTP or grading permit.

7.6.2 *Herbicides*

- A. Potential Impact.** During project construction and operation of the solar facility, herbicides will be used for weed management. The application of herbicides is considered a significant impact.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure HM2 of the Final EIR/EA.

Mitigation Measure HM2

Prior to the application of herbicides on the solar facility for weed management, a weed control plan shall be developed and approved by the BLM and reviewed and commented on by the County of Imperial Agricultural Commissioner. The weed control plan shall provide:

- 1) monitoring, preventative and management strategies for weed control during construction activities at the project;
- 2) control and management of weeds in areas temporarily disturbed during construction where native seed will aid in site revegetation; and,
- 3) a long-term strategy for weed control and management during the operation of the project.

7.7 Hydrology and Water Quality

- A. Potential Impact.** Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site detention basins as a result of construction or post-construction-related activities, resulting in potentially significant water quality impacts.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure HWQ1 of the Final EIR/EA.

Mitigation Measure HWQ1

Prior to the recordation of the first final map and/or issuance of the first grading permit, the developer shall submit and receive a NPDES permit from the RWQCB in accordance with a SWPPP approved by the County of Imperial. The SWPPP shall include source control and treatment control BMPs. Possible source control BMPs include, but are not limited to:

- trash storage;
- integrated pest management;
- efficient irrigation and landscape design; and,
- property owner educational materials regarding source control management.

Treatment control BMPs will comprise of detention basins to remove trash and pollutants such as sediment, nutrients, metals, bacteria, oil and grease, and organics.

BMP Maintenance

Proper maintenance is required to insure optimum performance of the detention basins. Maintenance will be the responsibility of the owner throughout the life of the project. The owner will instruct any future owner of the maintenance responsibility. The operational and maintenance needs of the proposed detention basins and under-panel detention basins include:

- Periodic sediment removal.
- Monitoring of the basin to ensure it is completely and properly drained.
- Outlet structure cleaning.
- Vegetation management.
- Removal of weeds, tree pruning, leaves, litter, and debris.
- Vegetative stabilization of eroding banks.

Inspection Frequency

The facility will be inspected and inspection visits will be completely documented:

- Once during the rainy season and once between each rainy season at a minimum,
- After every large storm (after every storm monitored or those storms with more than 0.50 inch of precipitation).

Aesthetic and Functional Maintenance

Functional maintenance is important for performance and safety reasons. Aesthetic maintenance is important for public acceptance of storm water facilities.

Aesthetic Maintenance - The following activities will be included in the aesthetic maintenance program:

- Weed Control: Weeds will be removed through mechanical means.

Functional Maintenance has two components:

- Preventative maintenance.
- Corrective maintenance.

Preventative Maintenance

Preventative maintenance will be done on a regular basis. Preventative maintenance activities to be instituted at the basin are:

- Trash and Debris: During each inspection and maintenance visit to the site, debris and trash removal will be conducted to reduce the potential for inlet and outlet structures and other components from becoming clogged and inoperable during storm events.
- Sediment management: Alluvial deposits at the inlet structures may create zones of ponded water. Upon these occurrences these deposits will be graded within the basin in an effort to maintain the functionality of the BMP. Sediment grading will be accomplished by manually raking the deposits.
- Sediment removal: Surface sediments will be removed when sediment accumulation is greater than 18-inches, or 10 percent of the basin volume, whichever is less. Vegetation removed with any surface sediment excavation activities will be replaced through reseeding.
- Mechanical Components: Regularly scheduled maintenance will be performed on valves, fence gates, locks, and access hatches in accordance with the manufacturers' recommendations. Mechanical components will be operated during each maintenance inspection to assure continued performance.
- Elimination of Mosquito Breeding Habitats: The most effective mosquito control program is one that eliminates potential breeding habitats.

Corrective Maintenance

Corrective maintenance is required on an emergency or non-routine basis to correct problems and to restore the intended operation and safe function of a basin. Corrective maintenance activities include:

- **Removal of Debris and Sediment:** Sediment, debris, and trash, which threaten the ability of a basin to store or convey water, will be removed immediately and properly disposed of.
- **Structural Repairs:** Repairs to any structural component of a basin will be made promptly (e.g., within 10 working days). Designers and contractors will conduct repairs where structural damage has occurred.
- **Embankment and Slope Repairs:** Damage to the embankments and slopes will be repaired quickly (e.g., within 10 working days).
- **Erosion Repair:** Where a reseeding program has been ineffective, or where other factors have created erosive conditions (i.e., pedestrian traffic, concentrated flow, etc.), corrective steps will be taken to prevent loss of soil and any subsequent danger to the performance of a basin. There are a number of corrective actions that can be taken. These include erosion control blankets, riprap, sodding, or reduced flow through the area. Design engineers will be consulted to address erosion problems if the solution is not evident.
- **Fence Repair:** Timely repair of fences (e.g., within 10 working days) will be done to maintain the security of the site.
- **Elimination of Trees and Woody Vegetation:** Woody vegetation will be removed from embankments.
- **Elimination of Animal Burrows:** Animal burrows will be filled and steps taken to remove the animals if burrowing problems continue to occur (filling and compacting). If the problem persists, vector control specialists will be consulted regarding removal steps. This consulting is necessary as the threat of rabies in some areas may necessitate the animals being destroyed rather than relocated.
- **General Facility Maintenance:** In addition to the above elements of corrective maintenance, general corrective maintenance will address the overall facility and its associated components. If corrective maintenance is being done to one component, other components will be inspected to see if maintenance is needed.

Maintenance Frequency

Maintenance indicators, described above, will determine the schedule of maintenance activities to be implemented at the basin. These basins should not require a rigorous maintenance schedule, once the landscaping is established. The inspection frequency and regular preventative maintenance will indicate when corrective maintenance is necessary.

The detention basins must be inspected at least once during the rainy season and at least once between each rainy season. These basins must be maintained so that they continue to function as designed. All

inspections and maintenance activities will be documented for submittal to the County of Imperial and the Regional Water Quality Control Board if requested.

7.8 Biological Resources

7.8.1 *Vegetation*

A. Potential Impact. Implementation of the proposed solar energy facility and associated access road would permanently impact active agricultural land, disturbed land, desert saltbush scrub, arrow weed thicket, and creosote bush-white burr sage scrub. Impacts to disturbed land are not considered significant. However, the impact to creosote bush-white burr sage scrub, desert saltbush scrub, and arrow weed thicket vegetation is considered a significant impact.

The Proposed Action transmission line corridor would permanently and temporarily impact creosote bush-white burr sage scrub and desert wash vegetation. Permanent and temporary impacts to creosote bush-white burr sage scrub and desert wash are considered significant under CEQA.

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B1 of the Final EIR/EA.

Mitigation Measure B1

Mitigation for the permanent and temporary impacts to creosote bush-white burr sage scrub, desert saltbush scrub, arrow weed thicket, and desert wash shall be accomplished through required mitigation acres. Table 4.12-10 identifies the mitigation ratio/requirement and required mitigation for each vegetation community.

7.8.2 *Noxious, Invasive, and Non-Native Weeds*

A. Potential Impact. During Operations and Maintenance, the solar panels have the potential to facilitate the growth and spread of weed species. This is considered a significant impact.

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B2 of the Final EIR/EA.

Mitigation Measure B2

To minimize the introduction and spread of weed species a Weed Management Plan will be developed and implemented. The weed management plan will include a discussion of specific weeds identified on site that will be targeted for eradication or control as well as a variety of measures that will be undertaken during construction and O&M activities to prevent the introduction and spread of new weed species as a result of the project.

General measures to prevent the spread of weeds include:

- Limiting disturbance areas during construction to the minimal required to perform work and limiting ingress and egress to defined routes
- Maintaining vehicle wash and inspection stations, and closely monitoring the types of materials brought onto the site to minimize the potential for weed introduction
- Use of certified weed free mulch, straw wattles, hay bales and seed mixes
- Reestablishing native vegetation along the transmission line and within the southwestern corner of the solar field as quickly as practicable on disturbed sites is the most effective long-term strategy to avoid weed invasions
- Monitoring and rapid implementation of control measures to ensure early detection and eradication for need weed invasions

Weed control methods that may be used include both physical and chemical control. Physical control methods include manual hand pulling of weeds, or the use of hand and power tools to uproot, girdle, or cut plants. Herbicide applications are a widely used, effective control method for removing infestations of invasive weed species. However, inadvertent application of herbicide to adjacent native plants must be avoided, which can often be challenging when weeds are interspersed with native cover. Before applying herbicide, contractors will be required to obtain any required permits from state and local authorities. Only a State of California and federally certified contractor will be permitted to perform herbicide applications. All herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations. Only herbicides and adjuvants approved by the State of California and federal agency for use on public lands will be used within or adjacent to the project site.

Invasive plants species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the *Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER 2007)*.

A Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS) was released to the public on June 29, 2007. The Record of Decision (ROD) for the PEIS includes standard operating procedures (SOPs) for applying herbicides (summarized in Appendix B, Table B-2 pages B-9 to B-14 of the ROD) and mitigation measures (summarized in Table 2, pages 2-4 to 2-6 of the ROD) that were adopted to ensure that all practicable means to avoid or minimize environmental harm is implemented in these vegetation treatment projects. The Human Health Risk Assessment (PEIS, Appendix B) and Ecological Risk Assessment (PEIS, Appendix C) include an analysis of impacts to resources and human health. This EA tiers to the both the human health and ecological risk assessments, the resource analyses related to the SOPs, and resource analyses related to the mitigation measures in the PEIS.

Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP).

7.8.3 *Burrowing Owl*

- A. Potential Impact.** Implementation of the Proposed Action would involve grading the solar energy facility site during construction, including any berms and culverts that may host burrowing owl. This is considered a significant impact to any burrowing owl individuals and/or active burrowing owl burrows.

After construction of the solar energy facility is complete, burrowing owls may occur within the active agricultural fields adjacent to the solar energy facility, including using the perimeter fence as a foraging perch. This is considered a significant impact.

- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures B3 and B4 of the Final EIR/EA.

Mitigation Measure B3

Burrowing owls have been observed in the active agricultural fields within the proposed solar energy facility. The following measures will avoid, minimize, or mitigate potential impact to burrowing owl during construction activities:

- 1) Initial grading of the agricultural fields project footprint should take place between September 1 and January 31 to avoid impacts to any breeding burrowing owls. If construction is to begin during the breeding season, the following measures will be implemented prior to February 1 to discourage the nesting of the burrowing owls within the area of impact. As construction continues, any area where owls are sighted would be subject to frequent surveys by the Designated Biologist or Biological Monitor for burrows before the breeding season begins, so that owls can be properly relocated before nesting occurs.
- 2) Within 30-days prior to initiation of construction, pre-construction clearance surveys for this species shall be conducted by qualified and agency-approved biologists to determine the presence or absence of this species within the construction area. This is necessary, as burrowing owls may not use the same burrow every year; therefore, numbers and locations of burrowing owl burrows at the time of construction may differ from the data collected during previous focused surveys. The proposed construction areas shall be clearly demarcated in the field by the project engineers and Designated Biologist prior to the commencement of the pre-construction clearance survey. The surveys shall follow the protocols provided in the *Burrowing Owl Survey Protocol and Mitigation Guidelines*.
- 3) If active burrows are present within the project footprint, the following mitigation measures shall be implemented. Passive relocation methods are to be used by the biological monitors to move the owls out of the impact zone. Passive relocation should only be done in the non-breeding season. This includes covering or excavating all burrows and installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow, but will exclude any animals from re-entering the burrow. A period of at least one week is required after the relocation effort to allow the birds to leave the impacted area before construction of the area can begin. The burrows

should then be excavated and filled in to prevent their reuse. The destruction of the active burrows on-site requires construction of new burrows at a mitigation ratio of 2:1 at least 50 meters from the impacted area and must be constructed as part of the above-described relocation efforts. The construction of new burrows will take place on BLM land to the north or south of the solar field, and outside of the proposed transmission corridor; any relocated burrows onto BLM lands will be approved by the agencies to prevent conflicts in future land use.

- 4) As the project construction schedule and details are finalized, an approved biologist shall prepare a BUOW Mitigation and Monitoring Plan that will detail the approved, site-specific methodology proposed to minimize and mitigate impacts to this species. Passive relocation, destruction of burrows, and construction of artificial burrows can only be completed upon prior approval by and in cooperation with the CDFG.

Compensation

CDFG's mitigation guidelines for burrowing owl (1995), requires a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird to be acquired and protected to offset the loss of foraging and burrow habitat on the project site.

Assuming project impacts to four active burrows, a minimum of 26 acres would be permanently protected to offset this loss. This mitigation would be implemented locally to provide at least 26 acres of the FTHL mitigation contains suitable habitat for burrowing owl and is approved by CDFG. If FTHL mitigation is in the form of an in lieu fee to be used within the Yuha MA, which also provides suitable habitat for BUOW, it is assumed that the BLM or ICC's use of the funds within the MA will also improve or increase habitat for BUOW and will therefore fulfill the BUOW mitigation requirement.

Mitigation Measure B4

A number of general mitigation measures, designed to reduce potential direct and indirect impacts to resources in the project area will be implemented after construction as standard Operation and Maintenance protocols. In order to reduce the potential impact to biological resources during operations and maintenance, the following will be implemented:

- A brief Annual Report will be submitted to the relevant resource agencies documenting the implementation of the following general measures as well as any resource-specific measures such as habitat restoration and/or compensation:
 - Speed limits along all transmission access roads and within the solar energy facility will not exceed 15 miles per hour. Transmission access for O&M activities shall be kept to the minimum necessary for operations and be accomplished during the winter months when feasible. This limited access and annual timing is designed to prevent FTHL mortality.
 - Annual formal Worker Education Training shall be established for all employees and any subcontractors at the ISEC South to provide instruction on sensitive species identification; measures to avoid contact, disturbance, and injury; and reporting procedures in the case of dead and/or injured wildlife species. The USFWS and the BLM shall be notified per approved guidelines and channels of authority if mortality should occur.

- A *Raven Control Plan* will be prepared and implemented that details specific measures for storage and disposal of all litter and trash produced by the solar energy facility and its employees. This plan is designed to discourage scavengers that may also prey on wildlife in the vicinity. All employees will be familiar with this plan and littering will not be tolerated. This plan will be approved by the BLM and CDFG.
- A *Weed Management Plan* will be prepared and implemented that describes specific on-going measures to remove weedy plant species from the solar energy facility and encourages native plant growth. This plan should be prepared in conformance with herbicide and native seed/planting guidelines outlined in the project's Habitat Restoration Plan, and will be approved by the BLM.
- A *Wildlife Mortality Reporting Program* will be prepared and implemented to identify and report any dead or injured animals observed by personnel conducting O&M activities within the solar energy facility and along the transmission line. An appropriate reporting format for dead or injured wildlife observed within the solar energy facility and along the transmission line will be developed in coordination with the USFWS and the BLM. In addition, reporting of any dead or injured avian species found along the transmission line will follow the existing USFWS Bird Fatality/Injury Reporting Program (<https://birdreport.fws.gov/>).
- An Avian and Bat Protection Plan (ABPP) will be prepared that will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations. These measures incorporate APLIC design guidelines for overhead utilities (2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species. The ABPP will also address disturbance minimization, timing of construction, minimization of activities that would attract prey and predators, and incorporation of the Wildlife Mortality Reporting Program and Raven Control Plan discussed above.

7.8.4 *Flat-tailed Horned Lizard*

Construction Impact

- A. Potential Impact.** Direct impacts to FTHL may occur during construction of the proposed solar energy facility and associated transmission line. Construction activities may result in the direct mortality, injury, or harassment of flat-tailed horned lizards. Construction activities may also impact FTHL habitat within the Management Area. Lastly, disturbance of soil and vegetation can encourage exotic plant species to encroach into FTHL habitat. These are considered significant impacts.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B5 of the Final EIR/EA.

Mitigation Measure B5

In accordance with the *FTHL Rangewide Management Strategy* (ICC 2003), the measures proposed below are designed to avoid, minimize, and/or compensate for potential direct and indirect effects construction of the proposed project may have on FTHL. The following will be implemented when conducting

construction activities on the transmission line and within the creosote bush-white burr sage scrub vegetation in the southwestern corner of the solar energy facility:

1. Prior to ground-disturbing activities, an individual shall be designated and approved by the USFWS and BLM as the Designated Biologist¹ (i.e. field contact representative) along with approved Biological Monitors as needed for construction, particularly within the Yuha MA. The Designated Biologist will be designated for the period during which on-going construction and post-construction monitoring and reporting by an approved biologist is required, such as annual reporting on habitat restoration. Each successive Designated Biologist will be approved by the BLM's Authorized Officer (i.e., BLM field manager, El Centro). The Designated Biologist will have the authority to ensure compliance with the conservation measures for the FTHL and will be the primary agency contact for the implementation of these measures. The Designated Biologist will organize and oversee the work of the biological monitors and have the authority and responsibility to halt activities that are in violation of the conservation measures. An organizational chart shall be provided to BLM prior to ground-disturbing activities with a clear chain of command and contact information (cell phones). A detailed list of responsibilities for the Designated Biologist is summarized below. To avoid and minimize impacts to biological resources, the Designated Biologist will:
 - Notify BLM's Authorizing Officer and the USFWS at least 14 calendar days before initiating ground disturbing activities.
 - Immediately notify BLM's Authorized Officer and the USFWS in writing if the Project applicant is not in compliance with any conservation measures, including but not limited to any actual or anticipated failure to implement conservation measures within the time periods specified.
 - Conduct compliance inspections at a minimum of once per month during on-going construction after clearing, grubbing, and grading are completed, and submit a monthly compliance report to BLM's Authorized Officer until construction is complete.
2. The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) will be delineated with stakes and flagging prior to construction activities. Where feasible, the areas shall be cleared of FTHL and fenced (according to the Strategy) to exclude FTHL from re-entering these construction areas, particularly in the MA and other high-use areas such as for staging of equipment or parking areas. Spoils will be stockpiled in disturbed areas lacking native vegetation or where habitat quality is poor, such as the agricultural fields rather than native desert. To the extent possible, disturbance of shrubs and surface soils due to stockpiling will be minimized. All disturbances, vehicles, and equipment will be confined to the flagged and cleared areas. To the extent possible, surface disturbance will be timed to minimize mortality to FTHL (see FTHL Construction Measure #7 below).

¹ A qualified Designated Biologist must have: (1) a bachelor's degree with an emphasis in ecology, natural resource management, or related science; (2) three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or the Wildlife Society (3) previous experience with applying terms and conditions of a biological opinion; and, (4) the appropriate permit and/or training if conducting focused or protocol surveys for listed or proposed species.

3. Approved Biological monitor(s) will assist the Designated Biologist in conducting pre-construction surveys and in monitoring of mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities. The biological monitor(s) will have experience conducting FTHL field monitoring, have sufficient education and field experience to understand FTHL biology, be able to identify FTHL scat, and be able to identify and follow FTHL tracks. The Designated Biologist will submit the resume, at least three references, and contact information of the proposed biological monitors to the BLM, CDFG, and USFWS for approval. To avoid and minimize impacts to biological resources, the Biological Monitors will assist the Designated Biologist with the following:
 - Be present during construction (e.g., grubbing, grading, solar panel installation) activities that take place in FTHL habitat to avoid or minimize take of FTHL. Activities include, but are not limited to, ensuring compliance with all impact avoidance and minimization measures, monitoring for FTHLs and removing lizards from harm's way, and checking avoidance areas (e.g., washes) to ensure that signs, and stakes are intact and that human activities are restricted in these avoidance zones.
 - At the end of each work day, inspect all potential wildlife pitfalls (trenches, bores and other excavations) for wildlife and then backfill. If backfilling is not feasible, all trenches, bores, and other excavations will be contoured at a 3:1 slope at the ends to provide wildlife escape ramps, or completely and securely covered to prevent wildlife access.
 - During construction, examine areas of active surface disturbance periodically, at least hourly, when surface temperatures exceed 29°Celsius (C; 85°F) for the presence of FTHL.
4. Prior to Project initiation, a worker environmental awareness program (WEAP) will be developed and implemented, and will be available in both English and Spanish. Wallet-sized cards summarizing this information will be provided to all construction, operation, and maintenance personnel. The education program will include the following aspects:
 - biology and status of the FTHL,
 - protection measures designed to reduce potential impact to the species,
 - function of flagging designating authorized work areas,
 - reporting procedures to be used if a FTHL is encountered in the field, and
 - driving procedures and techniques, for commuting to, and driving on, the Project site, to reduce mortality of FTHL on roads.
5. FTHLs will be removed from harm's way during all construction activities, per conservation measure #6 below. FTHL removal will be conducted by two or more biological monitors when construction activities are being conducted in suitable FTHL habitat. To the extent feasible, methods to find FTHLs will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per 0.40 ha (30 minutes per 1 ac). Persons that handle FTHLs will first obtain all necessary

permits and authorization from the CDFG. If the species is federally listed, only persons authorized by both CDFG and the USFWS will handle FTHLs. FTHL removal surveys will also include:

- A Horned Lizard Observation Data Sheet and a Project Reporting Form, per Appendix 8 of the RMS, will be completed. During construction, quarterly reports describing FTHL removal activity, per the reporting requirements described in Conservation Measure #1 above, will be submitted to the USFWF, BLM, CDFG.
6. The removal of FTHLs out of harm's way will include relocation to nearby suitable habitat in low-impact (e.g., away from roads and solar panels) areas of the Yuha MA. Relocated FTHLs will be placed in the shade of a large shrub in undisturbed habitat. If surface temperatures in the sun are less than 24° Celsius (C) 75° Fahrenheit (F) or exceed 38°C (100° F), the Designated Biologist or biological monitor, if authorized, will hold the FTHL for later release. Initially, captured FTHLs will be held in a cloth bag, cooler, or other appropriate clean, dry container from which the lizard cannot escape. Lizards will be held at temperatures between 75° F and 90° F and will not be exposed to direct sunlight. Release will occur as soon as possible after capture and during daylight hours. The Designated Biologist or biological monitor will be allowed some judgment and discretion when relocating lizards to maximize survival of FTHLs found in the Project area.
 7. To the maximum extent practicable, grading in FTHL habitat will be conducted during the active season, which is defined as March 1 through September 30, or if ground temperatures are between 24°C (75° F) and 38 °C (100° F). If grading cannot be conducted during this time, any FTHLs found will be removed to low-impact areas (see above) where suitable burrowing habitat exists, (e.g., sandy substrates and shrub cover).
 8. Temporarily disturbed areas associated with transmission line construction and staging areas, will be revegetated according to a Habitat Restoration Plan (HRP) approved by the BLM, CDFG, and Service. The HRP must be approved in writing by the aforementioned agencies within 60 days of any vegetation-disturbing activities. Restoration involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.), and monitoring the restored area for a period of 5 years (or less if the restoration meets all success criteria). Components of the HRP will include:
 - The incorporation of Desert Bioregion Revegetation/Restoration Guidance measures. These measures generally include alleviating soil compaction, returning the surface to its original contour, pitting or imprinting the surface to allow small areas where seeds and rain water can be captured, planting seedlings that have acquired the necessary root mass to survive without watering, planting seedlings in the spring with herbivory cages, broadcasting locally collected seed immediately prior to the rainy season, and covering the seeds with mulch.

Operations and Maintenance

In order to reduce the potential impact to FTHL during O&M, the following will be implemented when conducting O&M along the transmission line and within the creosote bush-white burr sage scrub vegetation in the southwestern corner of the solar energy facility:

9. No later than January 31 of every year the Project remains in operation, the Designated Biologist will provide the BLM, USFWS, CDFG, and the FTHL Interagency Coordinating Committee (ICC) via the BLM an annual Project FTHL Status Report, which will include, at a minimum:
 - A general description of the status of the project site within the MA.
 - A copy of the table in the Project biological monitoring report with notes showing the current implementation status of each conservation measure.
 - An assessment of the effectiveness of each completed or partially completed measure in avoiding and minimizing project impacts
 - A completed a Project Reporting Form from the Flat-tailed Horned Lizard Rangewide Management Strategy (RMS) (ICC 2003)
 - A summary of information regarding any FTHL mortality in conjunction with the Project's Wildlife Mortality Reporting Program.
 - Recommendations on how conservation measures might be changed to more effectively avoid, minimize, and offset future project impacts on the FTHL.
10. The Designated Biologist or biological monitor(s) will evaluate and implement the best measures to reduce FTHL mortality along access and maintenance roads, particularly during the FTHL active season (March 1 through September 30). These measures will include:
 - A speed limit of 15 miles per hour when driving transmission line access roads or maintenance roads within the solar energy facility. The Designated Biologist may reduce this speed limit to 10 mph in areas identified as active wildlife corridors as needed to reduced mortality. All vehicles required for O&M along the transmission line and within the Solar Energy Facility must remain on the designated access/maintenance roads. Cross country vehicle and equipment use outside of designated work areas shall be prohibited.
 - O&M activities including the washing of solar panels, weed abatement, or any other O&M activity that may result in ground disturbance will be conducted outside of the FTHL active season whenever feasible.
 - If any O&M activities must be conducted during the FTHL active season that may result in ground disturbance, such as weed abatement or vehicles requiring access outside of a designated access road, a biological monitor will be present during activities to reduce FTHL impacts.

Implementation of these measures would be based on annual FTHL activity levels, the best professional judgment of the Designated Biologist, and site specific road utilization. FTHL found on

access/maintenance roads will be relocated out of harm's way by the Designated Biologist or qualified FTHL monitor.

Compensation

In accordance with the *Flat-tailed Horned Lizard Rangewide Management Strategy*, mitigation would be required for impacts to FTHL habitat, as shown in Table 4.12-11.

FTHL are known to occur in the creosote bush-white burr sage scrub and desert wash vegetation along the proposed transmission corridors. In accordance with the *Rangewide Management Strategy*, compensation for permanent impact to this habitat within the MA will be at a 6:1 ratio.

No mitigation for FTHL is required for the active agricultural land within the proposed solar energy facility, as it does not provide habitat for this species.

Operations and Maintenance Impact

- A. Potential Impact.** FTHL injury or mortality could potentially occur due to occasional use of the transmission line access roads, or driving access roads within the southwest corner of the solar energy facility, weed abatement, or any other activities that may result in ground disturbance outside of the designated access roads. In addition, an increase in avian predators may indirectly impact FTHL within the Management Area and southwest corner of the solar energy facility. These potential impacts are considered significant.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures B4 and B5 (as listed above) of the Final EIR/EA.

7.8.5 Nesting Raptors

Construction Impact

- A. Potential Impact.** Noise generated during construction activities could potentially impact nesting raptors. If construction occurs during the breeding season, a significant impact is anticipated to occur to active raptor nests. In addition, the creosote bush-white burr sage scrub and desert wash along the Proposed Action Transmission Line Corridor may provide foraging habitat for a variety of raptors. Impacts to this foraging habitat are considered a significant impact.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B6 of the Final EIR/EA.

Mitigation Measure B6

Raptors and active raptor nests are protected under California Fish and Game Code 3503.5, 3503, 3513. In order to prevent direct and indirect noise impact to nesting raptors such as red-tailed hawk, the following measures should be implemented:

- Initial grading and construction within the Proposed Action site should take place outside the raptors' breeding season of February 1 to July 15.
- If construction occurs between February 1 and July 15, an approved biologist shall conduct a pre-construction clearance survey for nesting raptors in suitable nesting habitat (e.g., tall trees or transmission towers) that occurs within 500 feet of the survey area. If any active raptor nest is located, the nest area will be flagged, and a 500-foot buffer zone delineated, flagged, or otherwise marked. No work activity may occur within this buffer area, until an approved biologist determines that the fledglings are independent of the nest.

Mitigation for impacts to potential raptor foraging habitat would be conducted in concert with the purchase/acquisition of mitigation for FTHL habitat as detailed in Mitigation Measure B4. As the 6:1 mitigation ratio for FTHL habitat well exceeds the amount required for impacts to raptor foraging habitat, it is not anticipated that additional mitigation would be necessary.

Operations and Maintenance Impact Mitigation

Mitigation for potential impact to raptors and other avian species due to collision with the proposed transmission lines is discussed below in Mitigation Measure B6 (Mitigation for Migratory Birds and Other Sensitive Non-migratory Bird Species), including the development of an ABPP.

7.8.6 *Migratory Birds*

Construction Impact

- A. Potential Impact.** A direct significant impact may occur to migratory bird species if construction occurs during the breeding season.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B7 of the Final EIR/EA.

Mitigation Measure B7

In order to reduce the potential indirect impact to migratory birds, bats and raptors, an Avian and Bat Protection Plan (ABPP) will be prepared following the USFWS's guidelines and then implemented by the Project proponent. This ABPP will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations and will be developed by the applicant in conjunction with and input from the USFWS.

Construction Conservation Measures

Construction conservation measures to be incorporated into the ABPP include:

- Minimizing disturbance to vegetation to the maximum extent practicable.
- Clearing vegetation outside of the breeding season. If construction occurs between February 1 and September 15, an approved biologist shall conduct a pre-construction clearance survey for nesting birds in suitable nesting habitat that occurs within the proposed area of impact. Pre-construction nesting surveys will identify any active migratory birds (and other sensitive non-migratory birds) nests. Direct impact to any active migratory bird nest should be avoided.
- Minimize wildfire potential.
- Minimize activities that attract prey and predators.
- Control of non-native plants
- Apply APLIC design guidelines for overhead utilities (APLIC 2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species.

Operations and Maintenance Measures

Operations and maintenance conservation measures to be incorporated into the ABPP include:

- Preparation of a Raven Control Plan that avoids introducing water and food resources in the area surrounding the solar energy facility.
- Incorporate APLIC guidelines for overhead utilities as appropriate to minimize avian collisions with transmission facilities (APLIC 2006).
- Minimize noise
- Minimize use of outdoor lighting.
- Implement post—construction avian monitoring that will incorporate of the Wildlife Mortality Reporting Program

Operations and Maintenance Impact

- A. Potential Impact.** Operations and maintenance activities along the transmission line could potentially result in avian mortality.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B7 (as listed above) of the Final EIR/EA.

7.8.7 *Mountain Plover*

- A. Potential Impact.** Direct and indirect significant impacts may occur to the mountain plover species during construction and operations and maintenance of the project.

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B8 of the Final EIR/EA.

Mitigation Measure B8

The following mitigation measures are designed to avoid and minimize direct and indirect harm or injury of federally listed and proposed listed mountain plover and their habitat, and to compensate for unavoidable direct and indirect effects resulting from project construction and operations and maintenance (O&M):

1. Speed limits along all transmission access roads and within the solar energy facility site should not exceed 15 miles per hour during construction and O&M. Transmission access for O&M activities shall be kept to the minimum necessary for operations. This limited access is designed to prevent wildlife mortality.
2. An Avian and Bat Protection Plan (ABPP) will be prepared and approved by BLM and USFWS, prior to groundbreaking activities, which will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations. The conservation measures in the ABPP will include:
 - Minimizing disturbance to vegetation to the extent practicable.
 - Clearing vegetation outside of the breeding season. If construction occurs between February 1 and September 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting birds in suitable nesting habitat that occurs within the proposed area of impact. Pre-construction nesting surveys will identify any active migratory birds (and other sensitive non-migratory birds) nests. Direct impact to any active migratory bird nest should be avoided.
 - Minimize wildfire potential.
 - Minimize activities that attract prey and predators.
 - Control of non-native plants.
 - Apply Avian Power Line Interaction Committee design guidelines for overhead utilities (2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species.
 - Preparation of a Raven Control Plan that avoids introducing water and food resources in the area surrounding the solar energy facility.
 - Minimize noise.
 - Minimize use of outdoor lighting.
 - Implement post-construction avian monitoring that will incorporate a Wildlife Mortality Reporting Program.
3. A Wildlife Mortality Reporting Program will be prepared and approved by BLM prior to groundbreaking activities, and implemented during O&M of the solar facility. This plan calls for identification and reporting of any dead or injured animals observed by personnel conducting O&M activities within the solar energy facility site and along the transmission line. An appropriate reporting format for dead or injured wildlife observed within the solar energy facility site and along

the transmission line will be developed in coordination with the USFWS and the BLM. In addition, reporting of any dead or injured avian species found along the transmission line will follow the existing USFWS Bird Fatality/Injury Reporting Program ([https:// birdreport.fws.gov/](https://birdreport.fws.gov/)).

4. Prior to ground-disturbing activities, an individual shall be designated and approved by the USFWS and BLM as a Designated Biologist* (i.e., field contact representative). A Designated Biologist will be designated for the period during which on-going construction and post-construction monitoring and reporting by an approved biologist is required, such as annual reporting on habitat restoration. Biological Monitor(s) will assist the Designated Biologist in conducting pre-construction surveys and monitoring mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities.

* A qualified Designated Biologist must have (1) a Bachelor's degree with an emphasis in ecology, natural resource management, or related science; (2) 3 years of experience in field biology or a current certification of a nationally recognized biological society such as The Ecological Society of America or the Wildlife Society; (3) previous experience with applying terms and conditions of a biological opinion; and (4) an appropriate permit and/or training if conducting focused or protocol surveys for listed or proposed species.

5. Prior to project initiation, a Worker Education Awareness Program (WEAP) will be developed and implemented, and will be available in both English and Spanish. Wallet-sized cards summarizing this information will be provided to all construction, operation, and maintenance personnel. The education program will include the following aspects:
 - Biology and status of the mountain plover.
 - Protection measures designed to reduce potential impacts to the species.
 - Function of flagging designating authorized work areas.
 - Reporting procedures to be used if a mountain plover is encountered in the field.
 - Driving procedures and techniques for commuting and driving on to the project site to prevent mortality of all wildlife species on roads.
6. In the event that continuing agricultural practices on the solar energy facility site are impractical after installation of the solar panels, the vegetation underneath the panels will be maintained as a short grass habitat that could support foraging activities for mountain plover. The timing and formula of any herbicide used for control of weeds will be in accordance with the proposed project's Weed Management Plan, which conforms to resource agency guidelines and standards designed to minimize impacts to sensitive biological resources. Specifically, herbicides should be applied to any agricultural fields outside of the mountain plover over-wintering season of November through February.

7.8.8 *Riparian Habitat or Sensitive Natural Communities*

Construction Impact

- A. Potential Impact.** Implementation of the Proposed Action would impact sensitive natural communities including creosote bush-white burr sage scrub, desert wash, and arrow weed thicket vegetation.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B1 (as listed above) of the Final EIR/EA.

Operations and Maintenance Impact

- A. Potential Impact.** Soil disturbed due to grading during construction and continued use of the access roads along the Proposed Action transmission line corridor may result in the introduction or increased density of non-native invasive plant species. An increase in non-native invasive plants is considered a significant indirect impact to the creosote bush-white burr sage scrub, desert wash, and arrow weed thicket vegetation communities.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B4 (as listed above) of the Final EIR/EA.

7.8.9 *Jurisdictional Waters*

- A. Potential Impact.** A significant impact to CDFG and RWQCB jurisdictional resources may occur during widening of the IVS-8 access road. In addition, a significant impact to CDFG and RWQCB jurisdictional resources may occur within the Pinto Wash located in IVS-1 from construction of the transmission line.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure B9 of the Final EIR/EA.

Mitigation Measure B9

The Proposed Action will permanently impact 0.9 acre, and temporarily impact 0.8 acre of CDFG riparian habitat. No impacts to ACE jurisdictional resources are anticipated.

As shown in Table 4.12-12, mitigation for the 0.9 acre of permanent impacts to CDFG riparian habitat is typically at a 2:1, while mitigation for the 1.7 acres of temporary impacts to CDFG riparian habitat is typically at a 1:1 ratio; totaling 3.5 acres of required mitigation.

Mitigation for these impacts will be conducted in concert with the purchase/acquisition of mitigation for FTHL as detailed in Mitigation Measure B4 above. As the acreage for FTHL mitigation well exceeds the amount required for impacts to CDFG resources, it is not anticipated that additional mitigation would be necessary as long as the FTHL mitigation meets the requirements and approval of CDFG as riparian habitat

mitigation. A Section 1600 Streambed Alteration Agreement would also need to be authorized for impact to CDFG resources.

7.8.10 *Wildlife Movement and Nursery Sites*

- A. Potential Impact.** Implementation of the Proposed Action has the potential to interfere with the movement and corridor uses of wildlife species.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures B4 (as listed above) of the Final EIR/EA.

7.9 Paleontological Resources

- A. Potential Impact.** The paleontological sensitivity of the Lake Cahuilla deposits located within the project site boundary is considered to be high. As such, paleontological resources potentially located on the project site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment (fossils out of context); and/or physical damage of fossil specimens.
- B. Facts in Support of Finding.** The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measures PR1 through PR5 of the Final EIR/EA.

Mitigation Measure PR1

Prior to grading or any ground disturbance, a paleontological field survey shall be conducted for the project site. The paleontological field survey and subsequent monitoring activities shall be in accordance with the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources."

- A. Definition of Field Surveys.** Field Surveys are pedestrian surveys to be performed in areas where significant fossils can be expected to occur within the boundary and immediate vicinity of the anticipated disturbance, or where the probability of encountering significant fossils is unknown.
1. Field surveys are performed prior to any surface disturbing activities. Before conducting field surveys, the project location shall be as final as possible and any staking of the location shall be complete.
 2. Surveys are conducted by a BLM-permitted consulting paleontologist hired by the project proponent.
 - (a) Surveys shall be performed by a consulting paleontologist holding a valid BLM Paleontological Resources Use Permit. Submission of reports may be done directly by the paleontologist to the BLM. The project proponent is also responsible for all costs associated with the survey,

including the consulting paleontologist's fees and charges, all survey costs, fossil preparation to the basic identification stage, analyses, reports, and curation costs directly related to mitigation of the project's anticipated impacts. Any required monitoring and mitigation costs are also the responsibility of the project proponent. These costs are to be negotiated between the project proponent and the consulting paleontologist prior to beginning any data gathering, analysis, or field work, and these negotiations do not require BLM involvement or approval. Any new, additional, or modified curation agreements between the paleontologist and the official repository must be in place prior to starting field work.

- (b) Authorization for an activity to proceed cannot be given by a consulting paleontologist. Performance of the survey, either by a consulting paleontologist or BLM staff, or submission of the report DOES NOT constitute approval for the activity to proceed. The BLM must review the report, including adequacy of the field methods and findings. The Authorized Officer must approve the findings and determine the need for monitoring prior to approval to proceed.

B. Conducting Field Surveys. Field surveys must be performed by the Principal Investigator or an approved Field Agent or Field Monitor (as defined in the following section) as authorized under a Paleontological Resource Use Permit. Field surveys and collections performed as a mitigation measure are not intended to be scientific research studies, but are meant to identify, avoid, or recover paleontological resources to prevent damage or destruction from project activities. However, proper scientific techniques and procedures must be utilized during all mitigation efforts. Safety should be an important consideration; therefore, surveys should not be attempted on cliff faces, in open, non-reinforced trenches deeper than five feet, or other unsafe areas.

1. The scope of the survey is dependent upon the scale of the project. Small projects are defined as less than 10 acres, or, if linear, less than five miles; large projects exceed those dimensions.
2. At the start of field work, the consulting paleontologist (paleontologist) must contact the Paleontology Coordinator in each affected Field Office who may require a visit to that office.

After an initial visit each year, the paleontologist may contact the Field Office by telephone or email prior to subsequent field trips, at the discretion of the Field Office. Information about the survey schedule, additional personnel, emergency field contact information, and any other pertinent data shall be provided to the Paleontology Coordinator. The Field Office will inform the paleontologist of any conditions that may impact the survey, such as fire danger or restrictions, drought restrictions, wildlife timing restrictions, management restrictions, road restrictions or construction, and any other relevant information.

3. During the field survey, the paleontologist surveys, locates, and documents all paleontological resources within 200 feet of the proposed project location or corridor, or less distance upon approval.
 - (a) Where significant paleontological resources are at risk, data collection alone does not constitute mitigation of damage. All significant fossils that may be damaged or destroyed during project activities must be collected, along with all relevant contextual and

geographical data. Specimens must be collected during the survey or prior to commencement of any surface-disturbing activities.

- (b) In many cases, isolated gar scales, chelonid (turtle) carapace or plastron fragments, crocodile and fish teeth, and unidentifiable bone fragments do not need to be collected. The location must be recorded and a description of the fossil material noted in the field notes and on a BLM Locality Form as part of the report. The context of these types of fossils should be considered, as they may represent rare occurrences or unusual faunal associations, and thus may be scientifically important and must be documented and voucher specimens collected where appropriate.
 - (c) Occurrences of plant or invertebrate fossils should be recorded and representative examples or voucher specimens collected where appropriate. Additional mitigation measures may be appropriate in some cases for these types of localities.
 - (d) If a large specimen or a concentration of significant fossils is located during the field survey, the available time and/or personnel may not allow for full recovery during the survey. The specimen(s) and locality(ies) should be stabilized as needed, and a determination made as to whether avoidance is necessary or whether full recovery of the specimen is required at a later time prior to disturbance activities. The Authorized Officer and project proponent must be notified, the mitigation alternatives discussed including funding for recovery, and a decision reached as soon as possible. If avoidance or later recovery is selected for mitigation, the find should be stabilized, buried if needed to protect the fossils and context, and appropriate measures implemented to reduce adverse effects from natural or human causes.
- 4. During the survey, locations or areas that exhibit a lithology suggesting a high probability of subsurface fossil material must be recorded, and a recommendation for the need for on-site monitoring, spot-checking, or testing shall be made in the report. This may include areas where no fossil material was found on the surface during the survey. The recommendation should consider the size and type of planned disturbance, such as the depth of a trenching operation or the acreage of surface disturbance.
 - 5. Surveys must be performed only during times when the ground is visible. Biological timing restrictions, such as critical nesting or birthing times, may confine or delay field activities.
- C. Report of Survey Findings. After completion of the field survey, the paleontologist must file a written report with the BLM and the designated repository. This report must summarize the results of the survey as well as appropriate geological and paleontological background information as described below. It should also include any recommendations for on-site monitoring or other mitigation. For small projects (less than 10 acres), the report must be filed within 30 days after completion of the survey unless the BLM has specifically approved a different time. The time frame for submission of the report for large projects should be negotiated during project scoping. On a case-by-case basis, approval to begin project activities may be granted for those portions of the project area noted to be less paleontologically sensitive prior to final approval of the report.

1. Reports of the general findings and the background information must be submitted to the BLM project manager or Authorized Officer (if appropriate), the Paleontology Lead or Regional Paleontologist, and each affected Field Office. Reports must include the information and details as specified on page 9 of Attachment 1 of the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources," as applicable.
 2. Exact locations of fossil localities contained in these reports are considered sensitive and must not be included in any public document. The BLM locality form (8270-3) or equivalent, 1:24000 scale map showing the localities, and any other information containing specific fossil locations may be bound separately or placed in a separate section to allow for preservation of confidential locality data. A copy of this confidential section must be submitted to the Paleontology Lead (in some cases, two copies may be required). A copy for each affected Field Office may be required. Another copy must be submitted to the official repository with the collected materials.
 3. BLM GPS recording and data standards must be used to report paleontological locality data. Existing USGS topographic maps are often based on the NAD27 standard, so locality data calculated from a map base must be converted before submission. Data must be recorded and reported with a mean error of +/- 12.5 meters or less, at a 95 percent confidence level. For small localities, data should be reported as point data. Larger polygonal localities should be reported using coordinates of a centroid and a description of the approximate size, or the key coordinate points of a bounding polygon. Linear features, such as roads or surveyed project boundaries, must be reported as line data. The 1:24000 scale map(s) accompanying the locality forms should graphically illustrate the locality, either as a point or an outline of the locality as appropriate, and be clearly labeled with the locality or field number.
- D. Report Approval. The Authorized Officer will analyze the Survey Report for adequacy within 30 working days of receipt. Notification accepting the report, or explaining any identified deficiencies, will be sent to the consulting paleontologist and the project proponent with a copy placed in the project file. Any deficiencies must be corrected as soon as possible, usually initiated within five working days, and the report must be resubmitted for approval. Any resubmissions must be prompt, but consideration will be made for the amount of time needed for major corrections. Deficiencies directly affecting the survey, such as inadequate survey procedures or incomplete data, must be corrected before granting approval for the project to proceed. Deficiencies not directly affecting the survey, such as curation issues, will not prevent approval of the project, but must be corrected as soon as possible.

Determination of Further Mitigation Requirements. Based on the field survey, the need for additional mitigation to protect paleontological resources shall be determined. The Authorized Officer, in consultation with Regional Paleontologist or the Paleontology Lead, shall analyze the Survey Report for survey findings and any mitigation recommendations. If no further mitigation is needed, the Authorized Officer will promptly notify the project proponent that there are no additional paleontological surveys or mitigation measures required, and the project may proceed pending any other approvals. The project file must be documented indicating acceptance of the survey report and identifying any additional mitigation requirements. If it is determined that additional mitigation efforts are needed to protect or preserve the paleontological resources, the project proponent will be notified as soon as

possible. The Authorized Officer and/or the Paleontology Lead usually develop and approve the mitigation procedures or recommend a project be redesigned in consultation with the project proponent. Factors such as locality or specimen significance, economics, safety, and project urgency will be considered when developing mitigation measures. Additional mitigation measures shall be developed and implemented as timely as possible so as not to delay project actions.

- A. Relocation. The preferred mitigation technique is to change the project location based on the results of the field survey. Relocation, however, may necessitate a field survey of the new area, as well as resurveys by other resource specialists. Anticipation of this contingency prior to or during the original survey may allow for survey of an expanded area at the same time.

If relocation will eliminate impacts and is acceptable to all parties, then a report to the file, including a map showing the original and revised locations, must be completed documenting the change. Approval for the project to proceed in the revised location may then be granted by the Authorized Officer to the project proponent. When avoidance is not possible, appropriate mitigation may include excavation or collection (data recovery), stabilization, monitoring, protective barriers and signs, or other physical and administrative protection measures.

- B. Deferred Fossil Collection. In some cases, fossil material may have been identified, but not completely collected during the initial field survey, such as a partial dinosaur or other large fossil assemblage. It may be possible to complete the recovery of this material and all related data prior to beginning construction activities, and thus mitigate the adverse impact. This may require a shift in the project schedule and must be coordinated with the project proponent.

Approval by the Authorized Officer for the project to proceed will only be granted when recovery of the fossil material and field data is completed. A report to the file and the project proponent documenting the recovery and indicating that no further mitigation is required must be completed, and the report signed by the Authorized Officer. If the discovery cannot be fully collected within the available time frame, it may have to be avoided by relocating or redesigning the project.

Mitigation Measure PR1

Based on the field survey and reporting results identified in Mitigation Measure PR1, a Monitoring Plan shall be developed and implemented (if required).

A monitoring plan can be developed by a qualified paleontologist hired by the proponent who holds a current California BLM Paleontology Use Permit. The plan must be appropriately scaled to the size and complexity of the anticipated monitoring. If developed by a third party, the appropriate Paleontology Lead or Regional Paleontologist shall review the plan for sufficiency prior to acceptance. Monitoring of the project may proceed when the monitoring plan is approved by the Authorized Officer. A monitoring plan indicates the treatments recommended for the area of the proposed disturbance and must minimally address the following:

1. The recommended approach to additional specimen collection, such as total or partial recovery or sampling; and,

2. The specific locations and intensity of monitoring or sampling recommended for each geologic unit, stratigraphic layer, or area impacted.

Monitoring intensity is determined based on the analysis of existing data and/or field surveys and any previous monitoring efforts.

Types of Monitoring. There are two types of monitoring: 1) on-site, performed during ongoing operations, and 2) spot-checks, performed during or after disturbance, or at key times during the progress of the project.

1. On-site monitoring – In areas with a high probability for buried fossils, the presence of a monitor at the site of disturbance at all times that disturbance is occurring may be warranted. The need for a full-time monitor is based on the findings of the survey, the local geology, and the proposed actions. Efforts will be made to complete fossil recovery with minimal work stoppage. However, in some cases, an extended period of work stoppage may be required, so coordination with the project proponent or representative is important. Prior to beginning the monitoring work, the monitor, company supervisor, and machinery operators shall agree on procedures for brief work stoppages to allow for examination of finds. It is critical that safety be of utmost concern because of the presence of heavy machinery and open trenches.

The monitor must assess any finds, collect loose fossil material and related data, and take appropriate steps to mitigate any current or potential damage. Consideration of the size of the expected fossils must also be considered; for example, microfossils may not be visible during excavation activities. It may be appropriate to collect samples of matrix for later recovery of microvertebrate fossils or other analyses. Activities planned to occur during night time should be assessed relative to the potential to uncover significant fossils. Fossils may not be visible at night in trenching or grading operations, so construction activities may need to be suspended during night time in sensitive areas.

2. Spot-checking – In areas with a moderate to high probability for unknown fossil material, it may be more appropriate to check only at key times rather than maintain continuous monitoring of operations. Key times for scheduling spot-checking are when the fossil-bearing bedrock is exposed to view or prior to placing soil material back into the excavation. Examples of these key times may be when a pipeline trenching operation is complete but before pipe is placed and the trench backfilled or prior to redistribution of topsoil. Spot-checking requires close coordination with the project proponent and the paleontologist, and usually requires the paleontologist to be available on short notice. In some instances, it may be advantageous to allow rain and/or wind to erode away loose matrix and concentrate fossil material to increase visibility. The paleontologist will coordinate with the project proponent to allow sufficient time for this action to occur, as appropriate to conditions, expected fossil material, and construction schedules.

The paleontologist should report potentially fossiliferous areas in the final report to allow for future assessment of sites, even if no fossils were located during the project monitoring.

Types of Field Personnel. It may be necessary to employ a number of paleontology field personnel simultaneously. There may be a lack of fully qualified paleontologists to perform all the necessary

monitoring during the scheduled times of construction. Use of additional personnel for field work is permissible, but Field Agents and Field Monitors (described below) must be requested by the Permittee and authorized by the BLM prior to field work.

1. Principal Investigator – The person listed as Permittee (Permit item 1a) on the Paleontological Resources Use Permit is the Principal Investigator (PI) and is responsible for all actions under the permit, for meeting all permit terms and conditions, and for the performance of all other personnel. This person is also the contact person for the project proponent and the BLM.
2. Field Agent – Other qualified paleontologists may perform field work independently of the PI under the conditions of this permit. Résumés must be submitted to BLM and must demonstrate qualifications equivalent to those of Permittees. Field Agents must be listed on the permit under “Name(s) of individual(s) responsible for planning, supervising, and carrying out fieldwork” (Permit item 8) or authorized in a separate letter from BLM. They must follow all the permit terms and conditions applicable to field work and must carry a copy of the permit, included terms and conditions, and separate authorizing letter (if used) while in the field. Field work results must be reported to the PI, who will then submit required reports.
3. Field Monitor – Field Monitors may be utilized for supplemental on-site monitoring of surface-disturbing activities when the PI or a Field Agent is performing field work elsewhere. Field Monitors must have sufficient field experience to demonstrate acceptable knowledge of fossil identification, collection methods, and paleontological techniques. The PI must supply a summary of each person’s experience to the BLM prior to field work. Field Monitors must be approved by the BLM prior to performing field work and must carry a copy of the permit while in the field. The PI or Field Agent must be in communication with the Field Monitor using a portable communication device, such as a cell phone or two-way radio, and are required to be near enough to the Field Monitor to allow for prompt examination of all fossil discoveries (no more than two hours away) by the PI or Field Agent.
4. Field Assistant – Additional personnel not meeting the previously cited experience or knowledge levels may be utilized during field work, but must be under direct, on-site supervision of either the PI or a Field Agent as part of a supervised crew. Field assistants must have at least four to eight hours of training or experience received from a qualified paleontologist in identifying paleontological resources prior to performing field work or when first utilized in this capacity. A listing of all Field Assistants (including contact information) must be supplied prior to any field work. All discoveries made by a Field Assistant must be immediately reported to the PI or Field Agent on site. To ensure proper supervision, an appropriate ratio of Field Assistants per PI or Field Agent must be maintained. The complexity of the project, the area to be covered, and the experience of the assistants are some of the factors that should be considered in determining the proper ratio, but commonly five to seven assistants is the maximum number that can be supervised by one PI or Field Agent.

Work Stoppage. If significant fossil material is discovered during construction activities, the PI, Field Agents, and Field Monitors have the authority to temporarily halt surface disturbing actions until an assessment of the find is completed and appropriate protection measures taken. Efforts will be made to complete fossil recovery with minimal work stoppage. However, in some cases, an extended period of work stoppage

may be required. If the paleontological resource can be avoided, mitigated, or collected within approximately two hours, work may resume after approval from the PI or Field Agent, and the Authorized Officer must be notified as soon as possible of the discovery and any mitigation efforts that were undertaken. If the find cannot be mitigated within a reasonable time (two hours), the concurrence of the Authorized Officer or official representative for a longer work stoppage must be obtained. Work may not resume until approval is granted from both the PI or Agent and the Authorized Officer.

Mitigation Measure PR3

Upon completion of all field work, including survey and monitoring, the PI must submit within 30 days, a written final report to the Authorized Officer, Paleontology Lead, and the designated repository. A copy of the report may be provided to the project proponent if required, but without the BLM Locality forms. Reports must include the details and information as specified on page 14 of Attachment 1 of the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources," as applicable.

Mitigation Measure PR4

When the final report with the specimen inventory and the signed receipt of confirmation of museum deposition are accepted by the BLM, mitigation for paleontological resources related to the project will be considered completed. The project proponent will be notified in writing as soon as possible by the Authorized Officer after consulting with the Paleontology Lead or Regional Paleontologist and a copy of the notification placed in the project file.

The responsibility of the project proponent ends when appropriate mitigation related directly to the project is completed and final approval is received from the Authorized Officer. Any additional field collection, quarrying, final specimen preparation, etc. will be considered to be research, and will be the responsibility of the consulting paleontologist or another approved party. The project proponent will not be held responsible for completion of any research project. However, the project proponent can choose to sponsor further research. A separate research permit will be required for additional research activities.

Mitigation Measure PR5

Fossil specimens and related data collected from public lands during field surveys and mitigation remain the property of the Federal government. They must be placed in the approved repository(s) identified on the Paleontological Resource Use Permit held by the consulting paleontologist as soon as practical and receipt(s) of collections submitted to the BLM, but no later than 60 days after all field work is completed. Written approval from the Paleontology Lead or Regional Paleontologist is required if additional time is needed for transfer of all specimens and field data.

7.10 Cumulative Impacts

7.10.1 *Transportation/Circulation*

A. Potential Impact. The addition of the Proposed Action's trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact to the following intersections: Intersection of Forrester Road to I-8 WB Ramp (LOS F, PM); and, Intersection of SR-98 at Clark Road (LOS F, PM).

B. Facts in Support of Finding. The Project's potentially significant impact would be mitigated to below a level of significance with implementation of Mitigation Measure CUM 1 of the Final EIR/EA.

Mitigation Measure CUM1

A Mitigation Monitoring and Reporting Program shall be established to determine if the two intersections would operate at un-acceptable LOS starting in Year 2012 and beyond annually until the project construction is completed. If un-acceptable LOS is documented in Year 2012, then a fair share contribution or payment of applicable Transportation Impact Fee is recommended as the mitigation measure. It should be noted that the fair share participation is based on the project's construction traffic that is significantly higher than the project's traffic after completion of construction.

If un-acceptable LOS is not documented at the two cumulatively impacted intersections based on the mitigation monitoring and reporting program, then the applicant's fair share contribution (based on construction traffic) should be refunded. If the County desires some form of mitigation, then it is recommended that the fair share contribution (based on permanent operation employees) be conditioned.

8.0 Findings Regarding Feasible Alternatives

Pursuant to CEQA Guidelines §15126.6(a), EIRs must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

The EIR/EA considers a reasonable range of alternatives. The alternatives to the Project are evaluated in Chapter 2.0 of the EIR/EA in terms of their ability to meet the basic objectives of the Project, and eliminate or further reduce its significant environmental effects. Based on these parameters, the following alternatives are considered: (1) Alternative 1-Alternative Transmission Line Corridor, (2) Alternative 2-Reduced Solar Energy Facility Site, and (3) Alternative 3-No Action/No Project Alternative.

8.1 Alternative 1-Alternative Transmission Line Corridor

The Alternative 1-Alternative Transmission Line Corridor for the transmission line is a variant of the Proposed Action toward the southern end of the transmission line corridor. Under Alternative 1-Alternative Transmission Line Corridor, the transmission corridor would be located closer to the international border with

Mexico as it exits the solar energy facility site. This alternative has the potential to impact U.S. Army Corps of Engineers jurisdictional waters. Also, this alternative is more likely to impact U.S. Border Patrol activities.

8.2 Alternative 2-Reduced Solar Energy Facility Site

The Alternative 2-Reduced Solar Energy Facility Site is considered the environmentally superior alternative, as it would reduce the direct impact to the loss of agricultural lands. However, this alternative would involve a 476-acre solar energy facility site. This alternative would involve the same transmission line corridor alignment as the Proposed Action; therefore, impacts within BLM lands would be the same as the Proposed Action. The characteristics would otherwise be the same as the Proposed Action.

8.3 Alternative 3-No Action/No Project Alternative

The State CEQA Guidelines require analysis of the No Project Alternative. According to §15126.6(e)(1), “[t]he specific alternative of ‘no project’ shall also be evaluated along with its impact.” Additionally, according to CEQA Guidelines §15126.6(e)(2), the ‘no project’ analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on the current plans and consistent with available infrastructure and community services.”

The Alternative 3-No Action/No Project Alternative assumes that the solar facility and associated transmission lines would not be constructed. This alternative would not involve a federal approval. However, the Proposed Action involves the Department of Energy’s (DOE’s) issuance of a loan guarantee to CSOLAR Development LLC for construction and startup of the Imperial Solar Energy Center South facilities in Imperial County, California. Under the Alternative 3-No Action/No Project Alternative, DOE would not issue a loan guarantee to CSOLAR Development LLC.

The Proposed Action would need to connect to the existing Imperial Valley Substation, which is located within BLM lands; therefore, it is not possible to traverse BLM lands without a Federal permit/approval.

Finally, under the Alternative 3-No Action/No Project Alternative, continuation of agricultural use of the solar energy facility portion of the project site would be expected, based on the current General Plan and Land Use Ordinance designations of the site for agricultural use.

Because the solar energy facility site and transmission line corridor would not be constructed on the proposed project site, the Alternative 3-No Action/No Project Alternative would avoid the significant project impacts associated with air quality; greenhouse gas emissions; geology/soils and mineral resources; cultural resources; agricultural resources; health, safety and hazardous materials/fire and fuels management; hydrology and water quality; biological resources; and, paleontological resources. However, the Alternative 3-No Action/No Project Alternative will not meet the primary objective of the project, which is to construct and operate a solar energy facility that will utilize Imperial County’s abundance of available solar energy to generate renewable energy.